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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,907	08/12/2004	Andre Yu	13418-US-PA	4906

  

31561	7590	07/25/2007
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE		
7 FLOOR-1, NO. 100		
ROOSEVELT ROAD, SECTION 2		
TAIPEI, 100		
TAIWAN		

  

EXAMINER	
BECK, ALEXANDER S	

  

ART UNIT	PAPER NUMBER
2629	

  

NOTIFICATION DATE	DELIVERY MODE
07/25/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USA@JCIPGROUP.COM.TW

<b>Office Action Summary</b>	<b>Application No.</b> 10/710,907	<b>Applicant(s)</b> YU ET AL.	
	<b>Examiner</b> Alexander S. Beck	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>20070716</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Acknowledgment is made of the amendment filed by the applicant on May 6, 2007, in response to the non-final Office action mailed on February 9, 2007, in which: the rejections of the claims are traversed. Claims 1-17 are currently pending in U.S. Patent Application No. 10/710,907 and an Office action on the merits follows.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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3. Claims 1-7, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,705,879 to Abe et al. (hereinafter “Abe”) in view of U.S. Patent No. 6,087,787 to Williams (hereinafter “Williams”).

As to claim 1, Abe discloses a liquid crystal display lighting control system in Figure 9, comprising: a lamp (20); a self-oscillation inverter (16, 18), coupled to a power source (12) and the lamp, for converting electrical energy from the power source to the lamp, the self-oscillation inverter operating with a self-oscillation frequency; a sampling-frequency generating circuit (16, 18), for sampling and measuring the self-oscillation frequency for outputting a synchronization frequency; a detecting-feedback circuit (22, 26), coupled to the lamp, for detecting a current flowing through the lamp and perform feedback operation and outputting a feedback signal; and a modulator (28), coupled to the detecting-feedback circuit, the sampling-frequency generating circuit and the self-oscillation circuit, for receiving and measuring the feedback signal and the synchronization frequency for outputting a controlling synchronized with the self-oscillation frequency. (Abe at col. 10, ln. 55 – col. 11, ln. 26.)

While Abe discloses that elements 16 and 18 of Figure 9, taken collectively, perform the functional limitations of both the presently claimed “self-oscillation inverter” and “sampling-frequency generating circuit”, there is no explicit disclosure that there are two separate means, which are coupled to one another, and perform the functional limitations of the “self-oscillation inverter” and “sampling-frequency generating circuit”, respectively.

Williams, analogous in art, discloses a fluorescent-lamp lighting system in Figure 8 comprising: a self-oscillation inverter (46), coupled to a power source (12) and a lamp (18), for converting electrical energy from the power source to the lamp, the self-oscillation inverter

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operating with a self-oscillation frequency; and a sampling-frequency generating circuit (48, 114), coupled to the self-oscillation inverter, for sampling and measuring the self-oscillation frequency for outputting a synchronization frequency. (Williams at col. 5, ll. 14-57; col. 8, ll. 53-65.)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Abe by replacing the combined self-oscillation inverter/sampling-frequency generating circuit with the separate elements of Williams. The suggestion/motivation for doing so would have been to provide a feedback signal that monitors the resonance frequency of the transformer. (Williams at Abstract.)

As to claim 2, Abe as modified by Williams teaches/suggests wherein the sampling-frequency generating circuit (48, 114) samples at a preset sampling location in the self-oscillation circuit (46). (Williams at Figure 8.)

As to claim 3, Abe as modified by Williams teaches/suggests wherein the self-oscillation inverter (46) comprises a first transistor (76) and a second transistor (78). (Williams at Figure 8.)

As to claim 4, Abe as modified by Williams teaches/suggests wherein the preset sampling location is a collector of the first transistor (76). (Williams at Figure 8.)

As to claim 5, Abe as modified by Williams teaches/suggests wherein the preset sampling location is a collector of the second transistor (78). (Williams at Figure 8.)

As to claim 6, Abe as modified by Williams teaches/suggests wherein the sampling-frequency generating circuit (48, 114) comprises: a sampling circuit (48), coupled to the self-oscillation circuit (46), for sampling the self-oscillation frequency; and a frequency-generating

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circuit (114), coupled to the sampling circuit and the modulator, outputting the synchronization frequency after measuring the self-oscillation frequency. (Williams at Figure 8.)

As to claim 7, Abe as modified by Williams teaches/suggests wherein the detecting-feedback circuit (22, 26) comprises: a detecting circuit (22), coupled to the lamp (20), for detecting the current flowing through the lamp and outputting a detecting signal; and a feedback compensation circuit (26), coupled to the detecting circuit and the modulator (28), for measuring the detecting signal for outputting the feedback signal. (Abe at col. 6, ll. 21-33; col. 10, ln. 55 – col. 11, ln. 26.)

As to claim 10, Abe as modified by Williams teaches/suggests discloses wherein the self-oscillation inverter (46) is a DC/AC inverter (e.g. elements 16 and 18 convert a DC power supply voltage, as is found in portable electronics devices such as a notebook personal computer, into an AC voltage signal to be received by discharge tube for illumination of the portable electronics device).

As to claim 11, Abe as modified by Williams teaches/suggests wherein the synchronization frequency is single, double, triple, or multiple of the self-oscillation frequency. (Abe at col. 10, ln. 55 – col. 11, ln. 26.)

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe and Williams as applied to claims 1-7, 10 and 11 above, and further in view of U.S. Patent No. 7,057,611 to Lin et al. (hereinafter “Lin”).

As to claims 8 and 9, note the above discussion with respect to claims 1-7, 10 and 11. Neither Abe nor Williams disclose expressly a buck circuit coupled to the modulator, the self-oscillation inverter and the power source. Lin, analogous in art, discloses a power supply for an

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liquid crystal display panel comprising a DC/DC buck converter circuit. (Lin at col. 2, ln. 26 – col. 3, ln. 24.)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the teachings of Abe and Williams such that the liquid crystal display lighting control system comprised a DC/DC buck circuit, as taught/suggested by Lin, by connecting a DC power source to the self-oscillation inverter via the DC/DC buck circuit. As such, the buck circuit would be coupled to the modulator, the self-oscillation inverter and the power source. The suggestion/motivation for doing so would have been because, as is well known in the art, DC/DC buck converters are an extremely efficient power supply that are self-regulating, making it ideal for portable electronics devices.

5. Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe, Williams and Lin.

As to claims 12-17, all of the claim limitations have already been discussed and met by Abe, Williams and Lin, as detailed in the above paragraphs with respect to claims 1-11.

### ***Response to Arguments***

6. Applicant's arguments, see pages 2-4, filed May 7, 2007, with respect to the rejections of the claims have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, new grounds of rejection are made in view of Abe, Williams and Lin.



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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander S. Beck whose telephone number is (571) 272-7765. The examiner can normally be reached on M-F, 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alexander S. Beck  
July 18, 2007

  
SUMATI LEFKOWITZ  
SUPERVISORY PATENT EXAMINER